



Rec'd PCT/PTO 09 SEP 2005

#5

SEQUENCE LISTING

<110> KAMEI, Akira
KAMEI, Yasutomi
OHIZUMI, Hiroshi

<120> A method of drug screening

<130> 2005-0199A/WMC/00653

<140> 10/523,982

<141> 2005-02-08

<150> PCT/JP2003/010163

<151> 2003-08-08

<150> JP 2002-231999

<151> 2002-08-08

<160> 2

<170> PatentIn Ver. 2.1

<210> 1

<211> 3345

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (32)..(3076)

<400> 1

ctccgccgca cgctgcagcc gcggctggaa g atg gcg ggg aac gac tgc ggc 52
Met Ala Gly Asn Asp Cys Gly
1 5

gcg ctg ctg gat gaa gag ctc tcg tcc ttc ttc ctc aac tat ctc tct 100
Ala Leu Leu Asp Glu Glu Leu Ser Phe Phe Leu Asn Tyr Leu Ser
10 15 20

gac acg cag ggt ggg gac tct gga gag gaa cag ctg tgt gct gac ttg 148
Asp Thr Gln Gly Gly Asp Ser Gly Glu Glu Gln Leu Cys Ala Asp Leu
25 30 35

cca gag ctt gac ctc tcc cag ctg gac gcc agt gac ttt gac tca gcc 196
Pro Glu Leu Asp Leu Ser Gln Leu Asp Ala Ser Asp Phe Asp Ser Ala
40 45 50 55

acg tgc ttt ggg gag ctg cag tgg tgc ccg gag acc tca gag aca gag 244
Thr Cys Phe Gly Glu Leu Gln Trp Cys Pro Glu Thr Ser Glu Thr Glu
60 65 70

ccc agc cag tac agc ccc gat gac tcc gag ctc ttc cag att gac agt 292
Pro Ser Gln Tyr Ser Pro Asp Asp Ser Glu Leu Phe Gln Ile Asp Ser
75 80 85

gag aat gaa gct ctc ttg gct gcg ctt acg aag acc ctg gat gac atc 340
Glu Asn Glu Ala Leu Leu Ala Ala Leu Thr Lys Thr Leu Asp Asp Ile
90 95 100

ccc gaa gac gat gtg ggg ctg gct gcc ttc cca gaa ctg gat gaa ggc 388
Pro Glu Asp Asp Val Gly Leu Ala Ala Phe Pro Glu Leu Asp Glu Gly
105 110 115

gac Asp 120	aca Thr	cca Pro	tcc Ser	tgc Cys	acc Thr 125	cca Pro	gcc Ala	tca Ser	cct Pro	gcc Ala 130	ccc Pro	tta Leu	tct Ser	gca Ala	ccc Pro 135	436
ccc Pro	agc Ser	ccc Pro	acc Thr	ctg Leu 140	gag Glu	agg Arg	ctt Leu	ctg Leu	tcc Ser 145	cca Pro	gcg Ala	tct Ser	gac Asp	gtg Val 150	gac Asp	484
gag Glu	ctt Leu	tca Ser	ctg Leu 155	cta Leu	cag Gln	aag Lys	ctc Leu	ctc Leu 160	ctg Leu	gcc Ala	aca Thr	tcc Ser	tcc Ser 165	cca Pro	aca Thr	532
gca Ala	agc Ser	tct Ser 170	gac Asp	gct Ala	ctg Leu	aag Lys	gac Asp 175	ggg Gly	gcc Ala	acc Thr	tgg Trp	tcc Ser 180	cag Gln	acc Thr	agc Ser	580
ctc Leu	agt Ser 185	tcc Ser	aga Arg	agt Ser	cag Gln	cgg Arg 190	cct Pro	tgt Cys	gtc Val	aag Lys	gtg Val 195	gat Asp	ggc Gly	acc Thr	cag Gln	628
gat Asp 200	aag Lys	aag Lys	acc Thr	ccc Pro	aca Thr 205	ctg Leu	cgg Arg	gct Ala	cag Gln	agc Ser 210	cgg Arg	cct Pro	tgt Cys	acg Thr	gaa Glu 215	676
ctg Leu	cat His	aag Lys	cac His	ctc Leu 220	act Thr	tcg Ser	gtg Val	ctg Leu	ccc Pro 225	tgt Cys	ccc Pro	aga Arg	gtg Val	aaa Lys 230	gcc Ala	724
tgc Cys	tcc Ser	cca Pro	act Thr 235	ccg Pro	cac His	ccg Pro	agc Ser	cct Pro 240	cgg Arg	ctc Leu	ctc Leu	tcc Ser	aaa Lys 245	gag Glu	gag Glu	772
gag Glu	gag Glu	gag Glu 250	gtg Val	ggg Gly	gag Glu	gat Asp	tgc Cys 255	cca Pro	agc Ser	cct Pro	tgg Trp	ctg Leu 260	act Thr	cca Pro	gcc Ala	820
tcg Ser	ccc Pro 265	caa Gln	gac Asp	tcc Ser	cta Leu	gca Ala 270	cag Gln	gac Asp	acg Thr	gcc Ala	agc Ser 275	ccc Pro	gac Asp	agt Ser	gcc Ala	868
cag Gln 280	cct Pro	ccc Pro	gag Glu	gag Glu	gat Asp 285	gtg Val	agg Arg	gcc Ala	atg Met	gta Val 290	cag Gln	ctc Leu	att Ile	cgc Arg	tac Tyr 295	916
atg Met	cat His	acc Thr	tac Tyr	tgc Cys 300	ctg Leu	cct Pro	cag Gln	agg Arg	aag Lys 305	ctg Leu	ccc Pro	caa Gln	cgg Arg	gcc Ala 310	cca Pro	964
gag Glu	cca Pro	atc Ile	ccc Pro 315	cag Gln	gcc Ala	tgc Cys	agc Ser	agc Ser 320	ctc Leu	tcc Ser	agg Arg	cag Gln	gtt Val 325	caa Gln	ccc Pro	1012
cga Arg	tcc Ser	cgg Arg 330	cat His	ccc Pro	ccc Pro	aaa Lys	gcc Ala 335	ttc Phe	tgg Trp	act Thr	gag Glu	ttc Phe 340	tct Ser	atc Ile	cta Leu	1060
agg Arg	gaa Glu 345	ctt Leu	ctg Leu	gcc Ala	caa Gln	gat Asp 350	atc Ile	ctc Leu	tgt Cys	gat Asp	gtt Val 355	agc Ser	aag Lys	ccc Pro	tac Tyr	1108
cgc Arg 360	ctg Leu	gcc Ala	ata Ile	cct Pro	gtc Val 365	tat Tyr	gct Ala	tcc Ser	ctc Leu	aca Thr 370	cct Pro	cag Gln	tcc Ser	agg Arg	ccc Pro 375	1156

agg Arg	ccc Pro	ccc Pro	aag Lys	gac Asp 380	agt Ser	cag Gln	gcc Ala	tcc Ser	cct Pro 385	gcc Ala	cac His	tct Ser	gcc Ala	atg Met 390	gca Ala	1204
gaa Glu	gag Glu	gtg Val	aga Arg 395	atc Ile	act Thr	gct Ala	tcc Ser	ccc Pro 400	aag Lys	agc Ser	acc Thr	ggg Gly	cct Pro 405	aga Arg	ccc Pro	1252
agc Ser	ctg Leu	cgt Arg 410	cct Pro	ctg Leu	agg Arg	ctg Leu	gag Glu 415	gtg Val	aaa Lys	cgg Arg	gat Asp	gtt Val 420	aac Asn	aag Lys	cct Pro	1300
aca Thr	agg Arg 425	caa Gln	aag Lys	cgg Arg	gag Glu	gaa Glu 430	gat Asp	gag Glu	gag Glu	gag Glu	gag Glu 435	gag Glu	gaa Glu	gaa Glu	gaa Glu	1348
gaa Glu 440	gag Glu	gaa Glu	gaa Glu	gaa Glu	aaa Lys 445	gaa Glu	gag Glu	gaa Glu	gaa Glu	gag Glu 450	gag Glu	tgg Trp	ggc Gly	agg Arg	aag Lys 455	1396
aga Arg	cca Pro	ggt Gly	cgt Arg	ggc Gly 460	ctg Leu	cca Pro	tgg Trp	acc Thr	aaa Lys 465	cta Leu	ggg Gly	agg Arg	aag Lys	atg Met 470	gac Asp	1444
agc Ser	tcc Ser	gtg Val	tgc Cys 475	ccc Pro	gtg Val	cgg Arg	cgc Arg	tcc Ser 480	agg Arg	aga Arg	ctg Leu	aat Asn	cca Pro 485	gag Glu	ctg Leu	1492
ggt Gly	ccc Pro	tgg Trp 490	ctg Leu	aca Thr	ttc Phe	act Thr	gat Asp 495	gag Glu	ccc Pro	tta Leu	ggt Gly	gct Ala 500	ctg Leu	ccc Pro	tcg Ser	1540
atg Met	tgc Cys 505	ctg Leu	gat Asp	aca Thr	gag Glu	acc Thr 510	cac His	aac Asn	ctg Leu	gag Glu	gaa Glu 515	gac Asp	ctg Leu	ggc Gly	agc Ser	1588
ctc Leu 520	aca Thr	gac Asp	agt Ser	agt Ser	caa Gln 525	ggc Gly	cgg Arg	cag Gln	ctc Leu	ccc Pro 530	cag Gln	gga Gly	tcc Ser	cag Gln	atc Ile 535	1636
ccc Pro	gcc Ala	ctg Leu	gaa Glu	agc Ser 540	ccc Pro	tgt Cys	gag Glu	agt Ser	ggg Gly 545	tgc Cys	gga Gly	gac Asp	aca Thr	gat Asp 550	gaa Glu	1684
gat Asp	cca Pro	agc Ser	tgc Cys 555	cca Pro	cag Gln	ccc Pro	act Thr	tcc Ser 560	aga Arg	gac Asp	tcc Ser	tcc Ser	agg Arg 565	tgc Cys	ctc Leu	1732
atg Met	ctg Leu	gcc Ala 570	ttg Leu	tca Ser	caa Gln	agc Ser	gac Asp 575	tct Ser	ctt Leu	ggc Gly	aag Lys	aag Lys 580	agc Ser	ttt Phe	gag Glu	1780
gag Glu	tcc Ser 585	ctg Leu	acg Thr	gtg Val	gag Glu	ctt Leu 590	tgc Cys	ggc Gly	acg Thr	gca Ala	gga Gly 595	ctc Leu	acg Thr	cca Pro	ccc Pro	1828
acc Thr 600	aca Thr	cct Pro	cca Pro	tac Tyr	aag Lys 605	cca Pro	atg Met	gag Glu	gag Glu	gac Asp 610	ccc Pro	ttc Phe	aag Lys	cca Pro	gac Asp 615	1876
acc Thr	aag Lys	ctc Leu	agc Ser	cca Pro 620	ggc Gly	caa Gln	gac Asp	aca Thr	gct Ala 625	ccc Pro	agc Ser	ctt Leu	ccc Pro	tcc Ser 630	ccc Pro	1924

gag Glu	gct Ala	ctt Leu	ccg Pro 635	ctc Leu	aca Thr	gcc Ala	acc Thr	cca Pro 640	gga Gly	gct Ala	tcc Ser	cac His	aag Lys 645	ctg Leu	ccc Pro	1972
aag Lys	agg Arg	cac His 650	cca Pro	gag Glu	cga Arg	agc Ser	gag Glu 655	ctc Leu	ctg Leu	tcc Ser	cat His	ttg Leu 660	cag Gln	cat His	gcc Ala	2020
aca Thr	acc Thr 665	caa Gln	cca Pro	gtc Val	tca Ser	cag Gln 670	gct Ala	ggc Gly	cag Gln	aag Lys	cgc Arg 675	ccc Pro	ttc Phe	tcc Ser	tgc Cys	2068
tcc Ser 680	ttt Phe	gga Gly	gac Asp	cac His	gac Asp 685	tac Tyr	tgc Cys	cag Gln	gtg Val	ctc Leu 690	agg Arg	cca Pro	gag Glu	gct Ala	gcc Ala 695	2116
ctg Leu	cag Gln	agg Arg	aag Lys	gtg Val 700	ctg Leu	cgg Arg	tcc Ser	tgg Trp	gag Glu 705	cca Pro	atc Ile	ggg Gly	gtc Val	cac His 710	ctt Leu	2164
gaa Glu	gac Asp	ttg Leu	gcc Ala 715	cag Gln	cag Gln	ggt Gly	gcc Ala	cct Pro 720	ctg Leu	cca Pro	acg Thr	gaa Glu	aca Thr 725	aag Lys	gcc Ala	2212
cct Pro	agg Arg	agg Arg 730	gag Glu	gca Ala	aac Asn	cag Gln 735	aac Asn	tgt Cys	gac Asp	cct Pro	acc Thr	cac His 740	aag Lys	gac Asp	agc Ser	2260
atg Met	cag Gln 745	cta Leu	aga Arg	gac Asp	cat His	gag Glu 750	atc Ile	cgt Arg	gcc Ala	agt Ser	ctc Leu 755	aca Thr	aag Lys	cac His	ttt Phe	2308
ggg Gly 760	ctg Leu	ctg Leu	gag Glu	act Thr	gct Ala 765	ctg Leu	gaa Glu	ggt Gly	gaa Glu	gac Asp 770	ctg Leu	gcg Ala	tcc Ser	tgt Cys	aaa Lys 775	2356
agc Ser	ccg Pro	gag Glu	tat Tyr	gac Asp 780	acc Thr	gta Val	ttt Phe	gag Glu	gac Asp 785	agc Ser	agc Ser	agc Ser	agc Ser	agt Ser 790	ggc Gly	2404
gag Glu	agt Ser	agc Ser	ttc Phe 795	ctg Leu	ctt Leu	gag Glu	gag Glu	gag Glu 800	gag Glu	gaa Glu	gag Glu	gag Glu	gag Glu 805	gga Gly	ggg Gly	2452
gaa Glu	gag Glu	gac Asp 810	gat Asp	gaa Glu	gga Gly	gag Glu	gac Asp 815	tca Ser	ggg Gly	gtc Val	agc Ser	cct Pro 820	ccc Pro	tgc Cys	tct Ser	2500
gat Asp	cac His 825	tgc Cys	ccc Pro	tac Tyr	cag Gln	agc Ser 830	cca Pro	ccc Pro	agt Ser	aag Lys	gcc Ala 835	agt Ser	cgg Arg	cag Gln	ctc Leu	2548
tgc Cys 840	tcc Ser	cga Arg	agc Ser	cgc Arg	tcc Ser 845	agt Ser	tcc Ser	ggc Gly	tcc Ser	tcg Ser 850	tcc Ser	tgc Cys	agc Ser	tcc Ser	tgg Trp 855	2596
tca Ser	cca Pro	gcc Ala	acc Thr	cgg Arg 860	aag Lys	aac Asn	ttc Phe	aga Arg	cgt Arg 865	gag Glu	agc Ser	aga Arg	ggg Gly	ccc Pro 870	tgt Cys	2644
tca Ser	gat Asp	gga Gly	acc Thr 875	cca Pro	agc Ser	gtc Val	cgg Arg	cat His 880	gcc Ala	agg Arg	aag Lys	cgg Arg	cgg Arg 885	gaa Glu	aag Lys	2692

gcc atc ggt gaa ggc cgt gtg gta tac att cga aat ctc tcc agt gac	2740
Ala Ile Gly Glu Gly Arg Val Val Tyr Ile Arg Asn Leu Ser Ser Asp	
890 895 900	
atg agc tct cgg gaa cta aag aag cgc ttt gag gtg ttc ggt gag att	2788
Met Ser Ser Arg Glu Leu Lys Lys Arg Phe Glu Val Phe Gly Glu Ile	
905 910 915	
gta gag tgc cag gtg ctg acg aga agt aaa aga ggc cag aag cac ggt	2836
Val Glu Cys Gln Val Leu Thr Arg Ser Lys Arg Gly Gln Lys His Gly	
920 925 930 935	
ttt atc acc ttc cgg tgt tca gag cac gct gcc ctg tcc gtg agg aac	2884
Phe Ile Thr Phe Arg Cys Ser Glu His Ala Ala Leu Ser Val Arg Asn	
940 945 950	
ggc gcc acc ctg aga aag cgc aat gag ccc tcc ttc cac ctg agc tat	2932
Gly Ala Thr Leu Arg Lys Arg Asn Glu Pro Ser Phe His Leu Ser Tyr	
955 960 965	
gga ggg ctc cgg cac ttc cgt tgg ccc aga tac act gac tat gat ccc	2980
Gly Gly Leu Arg His Phe Arg Trp Pro Arg Tyr Thr Asp Tyr Asp Pro	
970 975 980	
aca tct gag gag tcc ctt ccc tca tct ggg aaa agc aag tac gaa gcc	3028
Thr Ser Glu Glu Ser Leu Pro Ser Ser Gly Lys Ser Lys Tyr Glu Ala	
985 990 995	
atg gat ttt gac agc tta ctg aaa gag gcc cag cag agc ctg cat tga	3076
Met Asp Phe Asp Ser Leu Leu Lys Glu Ala Gln Gln Ser Leu His	
1000 1005 1010 1015	
tatcagcctt aaccttcgag gaataacctca atacctcaga caaggccctt ccaatatgtt	3136
tacgtttttca aagaaaagag tatatgagaa ggagagcgag cgagcgagcg agcgagcgag	3196
tgagcgtgag agatcacaca ggagagagaaa agacttgaat ctgctgtcgt ttcctttaaa	3256
aaaaaaaaa aaaaaactcg acggccaagt cggcctccct ttagtgaggg ttaatttggtg	3316
atcccgggtg gcatccctgt gacccctcc	3345

<210> 2
 <211> 1014
 <212> PRT
 <213> Homo sapiens

<400> 2
 Met Ala Gly Asn Asp Cys Gly Ala Leu Leu Asp Glu Glu Leu Ser Ser
 1 5 10 15
 Phe Phe Leu Asn Tyr Leu Ser Asp Thr Gln Gly Gly Asp Ser Gly Glu
 20 25 30
 Glu Gln Leu Cys Ala Asp Leu Pro Glu Leu Asp Leu Ser Gln Leu Asp
 35 40 45
 Ala Ser Asp Phe Asp Ser Ala Thr Cys Phe Gly Glu Leu Gln Trp Cys
 50 55 60
 Pro Glu Thr Ser Glu Thr Glu Pro Ser Gln Tyr Ser Pro Asp Asp Ser
 65 70 75 80
 Glu Leu Phe Gln Ile Asp Ser Glu Asn Glu Ala Leu Leu Ala Ala Leu
 85 90 95
 Thr Lys Thr Leu Asp Asp Ile Pro Glu Asp Asp Val Gly Leu Ala Ala
 100 105 110

Phe	Pro	Glu	Leu	Asp	Glu	Gly	Asp	Thr	Pro	Ser	Cys	Thr	Pro	Ala	Ser
		115					120					125			
Pro	Ala	Pro	Leu	Ser	Ala	Pro	Pro	Ser	Pro	Thr	Leu	Glu	Arg	Leu	Leu
	130					135					140				
Ser	Pro	Ala	Ser	Asp	Val	Asp	Glu	Leu	Ser	Leu	Leu	Gln	Lys	Leu	Leu
145					150					155					160
Leu	Ala	Thr	Ser	Ser	Pro	Thr	Ala	Ser	Ser	Asp	Ala	Leu	Lys	Asp	Gly
				165					170					175	
Ala	Thr	Trp	Ser	Gln	Thr	Ser	Leu	Ser	Ser	Arg	Ser	Gln	Arg	Pro	Cys
			180					185					190		
Val	Lys	Val	Asp	Gly	Thr	Gln	Asp	Lys	Lys	Thr	Pro	Thr	Leu	Arg	Ala
		195					200					205			
Gln	Ser	Arg	Pro	Cys	Thr	Glu	Leu	His	Lys	His	Leu	Thr	Ser	Val	Leu
	210					215					220				
Pro	Cys	Pro	Arg	Val	Lys	Ala	Cys	Ser	Pro	Thr	Pro	His	Pro	Ser	Pro
225					230					235					240
Arg	Leu	Leu	Ser	Lys	Glu	Glu	Glu	Glu	Glu	Val	Gly	Glu	Asp	Cys	Pro
				245					250					255	
Ser	Pro	Trp	Leu	Thr	Pro	Ala	Ser	Pro	Gln	Asp	Ser	Leu	Ala	Gln	Asp
			260					265					270		
Thr	Ala	Ser	Pro	Asp	Ser	Ala	Gln	Pro	Pro	Glu	Glu	Asp	Val	Arg	Ala
		275					280					285			
Met	Val	Gln	Leu	Ile	Arg	Tyr	Met	His	Thr	Tyr	Cys	Leu	Pro	Gln	Arg
	290					295					300				
Lys	Leu	Pro	Gln	Arg	Ala	Pro	Glu	Pro	Ile	Pro	Gln	Ala	Cys	Ser	Ser
305					310					315					320
Leu	Ser	Arg	Gln	Val	Gln	Pro	Arg	Ser	Arg	His	Pro	Pro	Lys	Ala	Phe
				325					330					335	
Trp	Thr	Glu	Phe	Ser	Ile	Leu	Arg	Glu	Leu	Leu	Ala	Gln	Asp	Ile	Leu
			340					345					350		
Cys	Asp	Val	Ser	Lys	Pro	Tyr	Arg	Leu	Ala	Ile	Pro	Val	Tyr	Ala	Ser
		355					360					365			
Leu	Thr	Pro	Gln	Ser	Arg	Pro	Arg	Pro	Pro	Lys	Asp	Ser	Gln	Ala	Ser
	370					375					380				
Pro	Ala	His	Ser	Ala	Met	Ala	Glu	Glu	Val	Arg	Ile	Thr	Ala	Ser	Pro
385					390					395					400
Lys	Ser	Thr	Gly	Pro	Arg	Pro	Ser	Leu	Arg	Pro	Leu	Arg	Leu	Glu	Val
				405					410					415	
Lys	Arg	Asp	Val	Asn	Lys	Pro	Thr	Arg	Gln	Lys	Arg	Glu	Glu	Asp	Glu
			420					425					430		
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Lys	Glu	Glu	Glu
		435					440					445			
Glu	Glu	Glu	Trp	Gly	Arg	Lys	Arg	Pro	Gly	Arg	Gly	Leu	Pro	Trp	Thr
	450					455					460				
Lys	Leu	Gly	Arg	Lys	Met	Asp	Ser	Ser	Val	Cys	Pro	Val	Arg	Arg	Ser
465					470					475					480
Arg	Arg	Leu	Asn	Pro	Glu	Leu	Gly	Pro	Trp	Leu	Thr	Phe	Thr	Asp	Glu
			485						490					495	
Pro	Leu	Gly	Ala	Leu	Pro	Ser	Met	Cys	Leu	Asp	Thr	Glu	Thr	His	Asn
			500					505					510		
Leu	Glu	Glu	Asp	Leu	Gly	Ser	Leu	Thr	Asp	Ser	Ser	Gln	Gly	Arg	Gln
		515					520					525			
Leu	Pro	Gln	Gly	Ser	Gln	Ile	Pro	Ala	Leu	Glu	Ser	Pro	Cys	Glu	Ser
	530					535					540				
Gly	Cys	Gly	Asp	Thr	Asp	Glu	Asp	Pro	Ser	Cys	Pro	Gln	Pro	Thr	Ser
545					550					555					560
Arg	Asp	Ser	Ser	Arg	Cys	Leu	Met	Leu	Ala	Leu	Ser	Gln	Ser	Asp	Ser
				565					570					575	
Leu	Gly	Lys	Lys	Ser	Phe	Glu	Glu	Ser	Leu	Thr	Val	Glu	Leu	Cys	Gly
			580					585					590		
Thr	Ala	Gly	Leu	Thr	Pro	Pro	Thr	Thr	Pro	Pro	Tyr	Lys	Pro	Met	Glu
		595					600					605			
Glu	Asp	Pro	Phe	Lys	Pro	Asp	Thr	Lys	Leu	Ser	Pro	Gly	Gln	Asp	Thr
	610					615					620				

Ala 625	Pro	Ser	Leu	Pro	Ser 630	Pro	Glu	Ala	Leu	Pro 635	Leu	Thr	Ala	Thr	Pro 640
Gly	Ala	Ser	His	Lys 645	Leu	Pro	Lys	Arg	His 650	Pro	Glu	Arg	Ser	Glu 655	Leu
Leu	Ser	His	Leu 660	Gln	His	Ala	Thr	Thr 665	Gln	Pro	Val	Ser	Gln 670	Ala	Gly
Gln	Lys	Arg 675	Pro	Phe	Ser	Cys	Ser 680	Phe	Gly	Asp	His 685	Asp	Tyr	Cys	Gln
Val	Leu 690	Arg	Pro	Glu	Ala 695	Leu	Gln	Arg	Lys	Val 700	Leu	Arg	Ser	Trp	
Glu 705	Pro	Ile	Gly	Val	His 710	Leu	Glu	Asp	Leu 715	Ala	Gln	Gln	Gly	Ala	Pro 720
Leu	Pro	Thr	Glu	Thr 725	Lys	Ala	Pro	Arg	Arg 730	Glu	Ala	Asn	Gln	Asn 735	Cys
Asp	Pro	Thr	His 740	Lys	Asp	Ser	Met	Gln 745	Leu	Arg	Asp	His 750	Glu	Ile	Arg
Ala	Ser	Leu 755	Thr	Lys	His	Phe	Gly 760	Leu	Leu	Glu	Thr	Ala 765	Leu	Glu	Gly
Glu	Asp 770	Leu	Ala	Ser	Cys	Lys 775	Ser	Pro	Glu	Tyr	Asp 780	Thr	Val	Phe	Glu
Asp 785	Ser	Ser	Ser	Ser	Ser 790	Gly	Glu	Ser	Ser	Phe 795	Leu	Leu	Glu	Glu	Glu 800
Glu	Glu	Glu	Glu	Glu 805	Gly	Gly	Glu	Glu	Asp 810	Asp	Glu	Gly	Glu	Asp 815	Ser
Gly	Val	Ser	Pro 820	Pro	Cys	Ser	Asp	His 825	Cys	Pro	Tyr	Gln	Ser 830	Pro	Pro
Ser	Lys	Ala 835	Ser	Arg	Gln	Leu	Cys 840	Ser	Arg	Ser	Arg	Ser 845	Ser	Ser	Gly
Ser	Ser	Ser	Cys	Ser	Ser	Trp 855	Ser	Pro	Ala	Thr	Arg 860	Lys	Asn	Phe	Arg
Arg 865	Glu	Ser	Arg	Gly	Pro 870	Cys	Ser	Asp	Gly	Thr 875	Pro	Ser	Val	Arg	His 880
Ala	Arg	Lys	Arg	Arg 885	Glu	Lys	Ala	Ile	Gly 890	Glu	Gly	Arg	Val	Val 895	Tyr
Ile	Arg	Asn 900	Leu	Ser	Ser	Asp	Met	Ser 905	Ser	Arg	Glu	Leu	Lys 910	Lys	Arg
Phe	Glu	Val 915	Phe	Gly	Glu	Ile	Val 920	Glu	Cys	Gln	Val	Leu 925	Thr	Arg	Ser
Lys	Arg 930	Gly	Gln	Lys	His	Gly 935	Phe	Ile	Thr	Phe	Arg 940	Cys	Ser	Glu	His
Ala 945	Ala	Leu	Ser	Val	Arg 950	Asn	Gly	Ala	Thr	Leu 955	Arg	Lys	Arg	Asn	Glu 960
Pro	Ser	Phe	His	Leu 965	Ser	Tyr	Gly	Gly	Leu 970	Arg	His	Phe	Arg	Trp 975	Pro
Arg	Tyr	Thr	Asp 980	Tyr	Asp	Pro	Thr	Ser 985	Glu	Glu	Ser	Leu	Pro 990	Ser	Ser
Gly	Lys	Ser 995	Lys	Tyr	Glu	Ala	Met 1000	Asp	Phe	Asp	Ser	Leu 1005	Leu	Lys	Glu
Ala	Gln	Gln	Ser	Leu	His										
1010															